

*In The Specification:*

*NE*

On page 3, line 6, insert --(SEQ ID NO:44)-- after "T4G4".

On page 12, line 13, delete "61 (human telomerase motifs)".

On page 12, line 14, replace "68" with --69--.

On page 12, line 17, delete "61,".

On page 12, line 17, replace "68" with --69--.

On page 12, line 20, delete "61,".

On page 12, line 20, replace "68" with --69--.

On page 12, line 24, delete "61,".

On page 12, line 24, replace "68" with --69--.

On page 12, line 25, delete "61,".

On page 12, line 26, replace "68" with --69--.

On page 12, line 29, replace "69" with --68--.

On page 13, line 4, replace "69" with --68--.

On page 13, line 12, replace "69" with --68--.

On page 13, line 15, replace "69" with --68--.

On page 14, line 24, replace "69" with --68--.

On page 14, line 25, replace "69" with --68--.

On page 14, line 30, replace "69" with --68--.

*which  
occurrence?*

On page 15, line 3, replace "69" with --68--.

On page 15, line 7, replace "69" with --68--.

On page 15, line 10, delete "55,".

On page 15, line 10, delete "67,".

On page 15, line 10, replace "69" with --68--.

On page 15, line 12, delete "55,".

On page 15, line 12, delete "67,".

On page 15, line 12, replace "69" with --68--.

On page 15, line 21, delete "61 (human),".

On page 15, line 22, replace "68" with --69--.

On page 15, line 28, delete "61,".

On page 15, line 28, replace "68" with --69--.

On page 16, line 7, delete "61,".

On page 16, line 7, replace "68" with --69--.

On page 18, line 12, replace "2-4" with --4-6--.

On page 20, line 4, replace "(SEQ ID NO:121)" with --(SEQ ID NO:62)--.

On page 20, line 11, delete "61,".

On page 20, line 12, replace "68" with --69--.

On page 26, line 2, insert --(SEQ ID NOS:16 and 17)-- after

"Tyr-X-Thr-Glu-X8-9-R3-R3-Arg-R4-X2-Trp".

On page 26, line 8, insert --, (SEQ ID NOS:16 and 17)-- after  
"Tyr-X-Thr-Glu-X8-9-R3-R3-Arg-R4-X2-Trp".

On page 26, line 19, insert --(SEQ ID NOS:119 and 120)-- after  
"W-X12-F-F-Y-X-T-E-X10-11-R-X3-W-X7-I".

On page 26, line 21, insert --(SEQ ID NO:473)-- after  
"W-L-X-Y-X-X-h-h-X-h-h-X-p-F-F-Y-X-T-E-X-p-X-X-X-p-X-X-Y-X-R-K-X-X-W".

On page 26, line 22, insert --(SEQ ID NO:121)-- after "E-X2-V-X".

On page 26, line 23, insert --(SEQ ID NO:478)-- after "h-R-h-X-P-K".

On page 26, line 23, insert --(SEQ ID NO:139)-- after "X3-R-X2-P-K-X3".

On page 26, line 24, insert --(SEQ ID NO:479)-- after "(F/L)-R-h-I-X2-h".

On page 26, line 25, insert --(SEQ ID NO:144)-- after  
"X4-F-X3-D-X4-Y-D-X2".

On page 26, line 26, insert --(SEQ ID NO:480)-- after  
"P-X-L-Y-F-h-X-h-D-h-X2-C-Y-D-X-I".

On page 26, line 27, insert --(SEQ ID NO:146)-- after  
"Y-X4-G-X2-Q-G-X3-S-X8".

On page 26, line 28, insert --(SEQ ID NO:474)-- after  
"K-X-Y-X-Q-X2-G-I-P-Q-G-S-X-L-S-X-h-L".

On page 26, line 29, insert --(SEQ ID NO:147)-- after  
"X6-D-D-X-L-X3".

On page 27, line 6, replace  
"XFFYXTEXXXXXXXXXX(F/Y)(F/Y)RXXXWXX(L/I)XXHXIXXXX(K/M)" with  
--XFFYXTEXXXXXXXXXX(F/Y)(F/Y)RXXXWXX(L/I)XXHXIXXXX(K/M)  
(SEQ ID NO:471)--.

On page 27, line 10, insert --(SEQ ID NO:71)-- after "FFYXTE".

On page 27, line 13, insert --(SEQ ID NO:367)-- after "hRhIPK".

On page 27, line 16, insert --(SEQ ID NO:472)-- after "hXXXXhRhIPK".

On page 27, line 20, insert --(SEQ ID NO:474)-- after  
"KXYXQXXGIPQGSXLSXhLXXhXYXDL".

On page 28, line 18, replace "SEQ ID NOS:45 and 46" with  
--SEQ ID NOS:43 and 45--.

On page 28, line 27, insert --(SEQ ID NO:3)-- after "DNA sequence".

On page 29, line 2, replace "(positions 2 through 1008 of SEQ ID NO:2)" with -  
-  
(SEQ ID NO:223)--.

On page 29, line 3, replace "(SEQ ID NO:52)" with --(SEQ ID NO:224)--.

On page 29, line 5, replace "(positions 132 through 1028 of SEQ ID NO:2)"  
with --(SEQ ID NO:225)--.

On page 29, line 6, replace "(SEQ ID NO:54)" with --(SEQ ID NO:226)--.

On page 29, line 14, replace "(SEQ ID NOS:13 and 18)" with  
--(SEQ ID NOS:227-230)--.

On page 30, line 4, replace "(SEQ ID NO:61)" with --(SEQ ID NO:67)--.

On page 30, lines 13 and 14, replace "(SEQ ID NO:68)" with  
--(SEQ ID NO:69)--.

On page 30, line 16, replace "(SEQ ID NO:69)" with --(SEQ ID NO:68)--.

On page 30, lines 18 and 19, replace "as well as a consensus sequence" with  
--as well as consensus sequences (SEQ ID NOS:243-255)--.

On page 30, line 21, insert --(SEQ ID NOS:256-261)-- after "antibodies".

On page 30, line 23, insert --(SEQ ID NOS:262 and 263)-- after "PCR primers".

On page 30, line 24, insert --(SEQ ID NOS:264 and 265)-- after "p123  
sequences".

On page 30, line 26, insert --(peptides QTKGIPQG and DDYLLIT are  
SEQ ID NOS:264 and 265, respectively) after "Figure 34".

On page 30, lines 27 and 28, insert --(SEQ ID NO:267)-- after "M2 PCR  
product".

On page 30, line 28, insert --(SEQ ID NO:266)-- after "E. aediculatus p123".

On page 30, line 28, insert --(SEQ ID NO:268)-- after "S. cerevisiae".

On page 31, line 17, replace "(SEQ ID NO:69) and amino acid (SEQ ID NO:68)"

with --(SEQ ID NO:68) and amino acid (SEQ ID NO:69)--

On page 31, line 22, replace "(SEQ ID NO:121)" with --(SEQ ID NO:62)--

On page 32, line 6, insert --(SEQ ID NOS:366-372)-- after "("TRT con")".

On page 32, line 7, insert --(SEQ ID NOS:373-378)-- after "("Sp\_Trt1p")".

On page 32, line 7, insert --(SEQ ID NOS:379-384)-- after "("hTRT")".

On page 32, line 8, replace "(EA\_p123)" with --("Ea\_p123") (SEQ ID NOS:385-390)--.

*A2*  
On page 32, line 8, replace "(Sc\_Est2p)" with --("Sc\_Est2p") (SEQ ID NOS:391-393, 244, 245, 394 and 395)--.

On page 32, line 10, insert --(SEQ ID NOS:290 and 291)-- after "("RT con")".

*A3*  
On page 32, line 12, insert --(SEQ ID NOS:396-398, 237, 399 and 239)-- after "mitochondria".

On page 32, line 13, insert --(SEQ ID NOS:400-406)-- after "retrotransposable element".

On page 32, line 13, insert --(SEQ ID NOS:407-411)-- after "from HIV-1".

*A4*  
On page 32, line 15, insert --Figure 56A shows alignment of mTRT protein (SEQ ID NO:413) with hTRT protein (SEQ ID NO:412). Consensus peptides are given in SEQ ID NOS:414-416. Figure 56B shows alignment of mTRT DNA (SEQ ID NO:419) with hTRT cDNA (SEQ ID NO:417). Consensus nucleotides are given in SEQ ID NO:418-- after "with hTRT".

On page 32, line 16, insert --(SEQ ID NOS:420-427)-- after "hTRT".

On page 32, line 16, insert --(SEQ ID NOS:428-435)-- after "("spTRT")".

On page 32, line 17, insert --(SEQ ID NOS:436-443)-- after "("eaTRT")".

*A5* 452) --.

On page 32, line 17, replace "("sc\_Est2")" with --("scTRT") (SEQ ID NOS:444-

*A6* On page 32, line 19, delete "with these sequences" and insert --with SEQ ID NOS:453, 370, 454 and 455, and conserved RT motif sequences ("RT con") SEQ ID NOS:290 and 291-- .

On page 32, line 23, replace "(designated SEQ ID NO:119 and 120, respectively)" with --(SEQ ID NOS:117 and 118)--.

On page 32, line 26, insert --(SEQ ID NO:124)-- after "mTRT cDNA".

On page 36, line 9, replace "(SEQ ID NO:121)" with --(SEQ ID NO:62)--.

On page 37, line 21, replace "(SEQ ID NOS:4-6)" with --(SEQ ID NOS:152-222)--.

On page 40, lines 27 and 28, replace "(cDNA, SEQ ID NO:1)" with --(cDNA, SEQ ID NO:117)--.

On page 41, line 19, insert --(SEQ ID NO:13)-- after "hxDD(F/Y)".

On page 41, line 19, insert --(SEQ ID NO:14)-- after "(L/V)xDD(F/Y)".

On page 41, line 20, insert --(SEQ ID NO:15)-- after "(F/Y)xDDh".

On page 41, line 24, insert --(SEQ ID NO:7)-- after "WxQxSx".

On page 41, line 25, insert --(SEQ ID NO:8)-- after "hLGxxh".

On page 42, line 10, insert --(SEQ ID NOS:119 and 120)-- after  
"W-X12-FFY-X-T-E-X10-11-R-X3-W-X7-I".

On page 42, line 11, insert --(SEQ ID NO:473)-- after  
"W-L-X-Y-X-X-h-h-X-h-h-X-p-F-F-Y-X-T-E-X-p-X-X-X-p-X-X-Y-X-R-K-X-X-W".

On page 42, line 14, insert --(SEQ ID NOS:16 and 17)-- after  
"Trp-R1-X7-R1-R1-R2-X-Phe-Phe-Tyr-X-Thr-Glu-X8-9-R3-R3-Arg-R4-X2-Trp".

On page 42, line 19, insert --(SEQ ID NOS:18 and 19)-- after  
"Trp-R1-X4-h-h-X-h-h-R2-p-Phe-Phe-Tyr-X-Thr-Glu-X-p-X3-p-X2-3-R3-R3-Arg-R4-X2-Trp".

On page 42, line 28, insert --(SEQ ID NOS:119 and 120)-- after  
"W-X12-F-F-Y-X-T-E-X10-11-R-X3-W-X7-I".

On page 42, line 29, insert --(SEQ ID NO:473)-- after  
"W-L-X-Y-X-X-h-h-X-h-h-X-p-F-F-Y-X-T-E-X-p-X-X-X-p-X-X-Y-X-R-K-X-X-W".

On page 42, line 30, insert --(SEQ ID NO:121)-- after "E-X2-V-X".  
On page 43, line 1, insert --(SEQ ID NO:139)-- after "X3-R-X2-P-K-X3".

On page 43, line 1, insert --(SEQ ID NO:478)-- after "h-R-h-X-P-K".

On page 43, line 2, insert --(SEQ ID NO:143)-- after "X-R-X-I-X".

On page 43, line 2, insert --(SEQ ID NO:479)-- after "(F/L)-R-h-I-X2-h".

On page 43, line 3, insert --(SEQ ID NO:144)-- after "X4-F-X3-D-X4-Y-D-X2".

On page 43, line 4, insert --(SEQ ID NO:480)-- after

"P-X-L-Y-F-h-X-h-D-h-X2-C-Y-D-X-I".

On page 43, line 5, insert --(SEQ ID NO:146)-- after  
"Y-X4-G-X2-Q-G-X3-S-X8".

On page 43, line 6, insert --(SEQ ID NO:474)-- after  
"K-X-Y-X-Q-X2-G-I-P-Q-G-S-X-L-S-X-h-L".

On page 43, line 7, insert --(SEQ ID NO:147)-- after  
"X6-D-D-X-L-X3".

On page 43, line 7, insert --(SEQ ID NO:481)-- after  
"L-L-R-L-X-D-D-X-L-h-I-T".

On page 43, line 21, insert --(SEQ ID NO:71)-- after "FFYXTE".  
On page 44, "TABLE 1", line 11, between the column headings "motif" and  
"direction", insert the column heading --motif SEQ ID NO:--.

On page 44, "TABLE 1", lines 11, after "5'-sequence-3'", insert the column  
heading --primer SEQ ID NO:--.

On page 44, "TABLE 1", lines 13, 14, 16, 17, 19, 20, 22, 23, 25 and 26,  
between the sequences under the column heading "motif" and "Forward" or "Reverse" under  
the column heading "direction", under the newly added column heading motif SEQ ID NO:,  
insert --112--, --112--, --46--, --46--, --82--, --82--, --86--, --370--, --476--, and --463--,  
respectively.

On page 44, "TABLE 1", lines 13, 14, 16, 17, 19, 20, 22, 23, 25 and 26, under  
the newly added column heading primer SEQ ID NO:, insert --148--, --149--, --150--, --456--,

--457--, --458--, --459--, --460--, --461--, and --462--, respectively.

On page 45, line 30, insert --(SEQ ID NO:71)-- after "FFYXTE".

On page 46, lines 19 and 20, replace "(SEQ ID NO:61)" with  
--(SEQ ID NO:67)--.

On page 46, line 21, replace "SEQ ID NOS:61 and 67" with  
--SEQ ID NO:67--.

On page 47, line 4, delete "(SEQ ID NO:61)" .

On page 47, line 7, replace "SEQ ID NO:61" with --SEQ ID NO:67--.

On page 47, line 8, replace "(SEQ ID NO:68)" with --(SEQ ID NO:69)--.

On page 47, line 9, replace "(SEQ ID NO:69)" with --(SEQ ID NO:68)--.

On page 70, lines 27 and 28, replace "SEQ. ID. NO:118" with  
--SEQ ID NO:117--.

On page 70, line 29, replace "SEQ. ID. NO: 117" with --SEQ ID NO:117--.

On page 88, line 29, replace "69" with --68--.

On page 134, line 2, insert --(SEQ ID NO:61)-- after "5'-(G4T4)2-3'".

On page 140, "TABLE 2.", line 10, under the column heading  
"SEQ ID NO:" replace "SEQ ID NO:40" with --SEQ ID NO:37--.

On page 140, lines 17 and 18, replace "(SEQ ID NOS:43 and 44, and 45 and 46,  
respectively)" with --(SEQ ID NOS:43-45)--.

On page 143, line 26, delete "The "La-domain" is indicated in bold-face type.".

On page 144, line 17, replace "(SEQ ID NO:2)" with --(SEQ ID NO:223)--.

On page 144, line 18, replace "(SEQ ID NO:52)" with --(SEQ ID NO:224)--.

On page 145, line 1, replace "(SEQ ID NO:2)" with --(SEQ ID NO:225)--.

On page 145, line 2, replace "(SEQ ID NO:54)" with --(SEQ ID NO:226)--.

On page 145, line 6, replace "(SEQ ID NOS:13 and 18)" with  
--(SEQ ID NOS:227-230)--.

On page 145, line 8, replace "(SEQ ID NOS:14-17, and 19-22)" with  
--(SEQ ID NOS:231-247)--.

On page 145, lines 9 and 10, replace "(SEQ ID NOS: 17 and 22)" with  
--(SEQ ID NOS:244-247)--.

On page 150, line 20, insert --; SEQ ID NO:71-- after "(FFYXTE".

On page 151, lines 6 and 7, replace "(SEQ ID NO:82)" with  
--(SEQ ID NO:85)--.

On page 155, line 17, replace "(SEQ ID NO:121)" with --(SEQ ID NO:62)--.

On page 155, line 22, replace "(SEQ ID NO:121)" with --(SEQ ID NO:62)--.

On page 155, lines 24-31, and page 156, lines 1-5, replace

"1679

G GTTGGCTGTG TTCCGGCCGC

AGAGCACCGT CTGCGTGAGG AGATCCTGGC CAAGTTCCCTG CACTGGCTGA

1700

TGAGTGTGTA CGTCGTCGAG CTGCTCAGGT CTTCTTTA TGTACGGAG  
1750

ACCACGTTTC AAAAGAACAG GCTCTTTTC TACCGGAAGA GTGTCTGGAG  
1800

CAAGTTGCAA AGCATTGGAA TCAGACAGCA CTTGAAGAGG GTGCAGCTGC  
1850

GGGAGCTGTC GGAAGCAGAG GTCAGGCAGC ATCGGGAAGC CAGGCCGCC  
1900

CTGCTGACGT CCAGACTCCG CTTCATCCCC AAGCCTGACG GGCTGCGGCC 1950

GATTGTGAAC ATGGACTACG TCGTGGGAGC CAGAACGTT CGCAGAGAAA  
2000

AGAGGGCCGA GCGTCTCACC TCGAGGGTGA AGGCACTGTT CAGCGTGCTC  
2050

AACTACGAGC GGGCGCGGCG CCCCCGCCTC CTGGGCGCCT CTGTGCTGGG  
2100

CCTGGACGAT ATCCACAG

2150 |2067 (SEQ ID NO:121)"

with

--1679

GCCAAGTTCC TGCACGGCT GATGAGTGTG TACGTCGTCG AGCTGCTCAG 1728

GTCTTCTT TATGTCACGG AGACCACGTT TCAAAAGAAC AGGCTTTT 1778

an

TCTACCGGAA GAGTGTCTGG AGCAAGTTGC AAAGCATTGG AATCAGACAG

1828

CACTTGAAGA GGGTGCAGCT GCGGGAGCTG TCGGAAGCAG AGGTCAGGCA

1878

GCATCGGGAA GCCAGGCCCG CCCTGCTGAC GTCCAGACTC CGCTTCATCC 1928

CCAAGCCTGA CGGGCTGCGG CCGATTGTGA ACATGGACTA CGTCGTGGGA 1978

GCCAGAACGT TCCGCAGAGA AAAGARGGCC GAGCGTCTCA CCTCGAGGGT

2028

GAAGGCACTG TTCAGCGTGC TCAACTACGA GCGGGCGCG 2067

(SEQ ID NO:62)--

*On page 156, line 29, replace "SEQ ID NO:61" with --SEQ ID NO:67--.*

*On page 157, line 3, replace "(SEQ ID NO:68)" with --(SEQ ID NO:69)--.*

*On page 157, line 4, replace "(SEQ ID NO:69)" with --(SEQ ID NO:68)--.*

*On page 157, line 15, delete "(SEQ ID NO:61)" .*

*On page 159, line 29, replace "(SEQ ID NO:114), "b" (SEQ ID NO:115), and  
"c" (SEQ ID NO:116)" with --(SEQ ID NOS:316-343), "b" (SEQ ID NOS:344-356), and "c"  
(SEQ ID NOS:357-365)--.*

*On page 160, line 11, replace "(SEQ ID NO:119 and 120, respectively" with  
--(SEQ ID NOS:117 and 118--.*

*On page 162, line 10, replace "(SEQ ID NO:69)" with --(SEQ ID NO:68)--.*

*On page 163, line 17, replace "(SEQ ID NOS:1, 3, 53, 55, 117)" with*

*A7  
concl'd*

*A8*

--(SEQ ID NOS:1, 3, 51, 53, and 117)--

On page 170, line 25, insert --; SEQ ID NO:20-- after "[GSVTK]".

On page 172, line 3, insert --; SEQ ID NO:20-- after "[GSVTK]".

On page 172, line 32, insert --; SEQ ID NO:20-- after "[GSVTK]".

On page 173, line 20, insert --; SEQ ID NO:20-- after "[GSVTK]".

On page 174, line 4, insert --; SEQ ID NO:20-- after "[GSVTK]".

On page 177, line 1, replace "CcaCcATGCCGCGCTCCCCGCTG-3'" with

*A9*  
--CCaCcATGCCGCGCTCCCCGCTG-3'--.

On page 177, line 15, replace "(SEQ ID NO:139)" with --(SEQ ID NO:137)--.

On page 178, line 25, insert --; SEQ ID NO:21-- after "[NSAVD]".

On page 181, line 1, replace the present sequence with overstrikes with

*A10*  
--YSILKAKNAGMSLGAKGAGPLPSEAVQWLCHQAFLLKLTRHRVTYVPLLGS  
LRTAQTLQSRKLPGTTLTALEAAANPALPSDFKTILD--.

On page 190, line 11, replace "(SEQ ID NO:143)" with --(SEQ ID NO:137)--.

On page 190, line 19, replace "(SEQ ID NO:144)" with --(SEQ ID NO:137)--.

On page 191, line 1, replace "(SEQ ID NO:146)" with --(SEQ ID NO:138)--.

On page 191, line 7, replace "(SEQ ID NO:147)" with --(SEQ ID NO:145)--.

On page 191, line 12, replace "(SEQ ID NO:148)" with --(SEQ ID NO:138)--.

On page 191, lines 16 and 17, replace

"CcaCcATGCCGCGCTCCCCGCTG-3' (SEQ ID NO:149)" with

--CCaCcATGCCGCGCGCTCCCGCTG-3' (SEQ ID NO:137)--

On page 193, line 2, replace "(SEQ ID NO:150)" with --(SEQ ID NO:145)--.

On page 194, line 19, insert --(SEQ ID NO:22)-- after

"5'-cttcaagaccatcctggacttcgaaacgcggccaccgcggtgagctcc-3".

On page 198, line 1, insert --(SEQ ID NO:40)-- after "GCCTG-3".

On page 198, line 2, replace "(SEQ ID NO:152)" with --(SEQ ID NO:477)--.

Please insert the accompanying paper copy of the Sequence Listing, page numbers 1 to 270, at the end of the application. (a12)

#### REMARKS

In response to the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures, 37 C.F.R. §§ 1.821-1.825, that accompanied the Notice to File Missing Parts of Application mailed March 9, 1998, Applicants submit herewith the required paper copy and computer readable copy of the Sequence Listing.

Applicants request entry of this amendment in adherence with 37 C.F.R. §§ 1.821 to 1.825. This amendment is accompanied by a floppy disk containing the above named sequences, SEQ ID NOS:1-482, in computer readable form, and a paper copy of the sequence information which has been printed from the floppy disk (271 pages).